Chapter 7

Beverages

THE beverage group includes one industry making nonalcoholic drinks, three industries producing spirituous beverages (malt, vinous and distilled), and one related industry manufacturing malt. The importance of the beverages group has fluctuated tremendously as a result of the enactment and repeal of prohibition laws. In 1899 the group accounted for a larger percentage of the total value added by manufacturing industries than 11 of the 16 other major groupings, but by 1937 its share of this total had diminished, and it stood among the lowest six instead of the highest.

TRENDS IN THE PHYSICAL OUTPUT OF THE BEVERAGE INDUSTRIES

Data on physical output are available for malt liquors and distilled liquors for the entire period; for vinous liquors, beginning with 1923; for malt, beginning with 1925; and for nonalcoholic beverages, beginning with 1931 (Table 17 and Chart 9).

Malt Liquors. The malt liquors industry, which embraces the factory production of beer, near beer, and similar beverages, made a net gain in output of only 60 percent from 1899 to 1937. There was a considerable rise during the first 15 years, culminating in a peak in 1914; after that date output fell rapidly until a low was reached in 1931. Following repeal output rose again, but even in 1937 it was more than 10 percent below the level attained in 1914.

Radical changes occurred not only in the aggregate quan-

TABLE 17

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Physical Output: Indexes and Percentage Changes[a]

	Liquors, Malt	*Malt*	*Liquors, Vinous*	*Liquors, Distilled*	*Beverages, Non-alcoholic*	*Total*[b] Unadjusted	*Total*[b] Adjusted
YEAR	INDEX OF PHYSICAL OUTPUT (1937:100)						
1899	62	..	..	24	..	53	43
1904	82	..	..	27	..	66	55
1909	96	..	..	31	..	77	63
1914	112	..	..	40	..	91	76
1919	47	..	..	1.0	..	24	23
1921	16	..	..	1.1	..	..	..
1923	9.0	..	11	0.9	..	..	..
1925	8.7	34	3.0	0.5	..	..	..
1927	7.4	33	3.6	0.4	..	..	..
1929	6.6	41	9.3	0.9	..	..	..
1931	5.3	36	5.4	0.9	66	..	..
1933	19	51	15	3.0	35	17	17
1935	77	87	75	65	52	70	70
1937	100	100	100	100	100	100	100
PERIOD	NET PERCENTAGE CHANGE IN PHYSICAL OUTPUT						
1899–1937	+60	..	..	+315	..	+89	+132
1899–1909	+54	..	..	+30	..	+45	+46
1909–1919	−51	..	..	−97	..	−69	−63
1919–1929	−86	..	..	−10	..	..	..
1929–1933	+185	+25	+64	+233	..	..	..
1933–1937	+432	+96	+554	+3,233	+183	+492	+492

[a] Legal production only. The indexes have been constructed from basic data in the U.S. Census of Manufactures and reports of the U.S. Bureau of Internal Revenue, by methods described briefly in Chapter 2 and in detail in Appendix A. Appendix B presents these data, together with the indexes derived from them. The indexes cited here for individual industries have been adjusted to take account of changes in the coverage of the respective samples, except when such adjustment was impossible. The percentage changes are not always entirely consistent with the indexes given above because the changes were computed from the indexes in Appendix B, which are carried to one decimal place.

[b] No indexes are given for 1919–33 because of inadequate data. The 1899–1919 indexes were computed on the 1909 and 1919 bases, as usual, and the 1935 and 1937 indexes were computed on the 1933 base. The segments were chained by the computation of an index for 1919 on the 1937 base.

Chart 9

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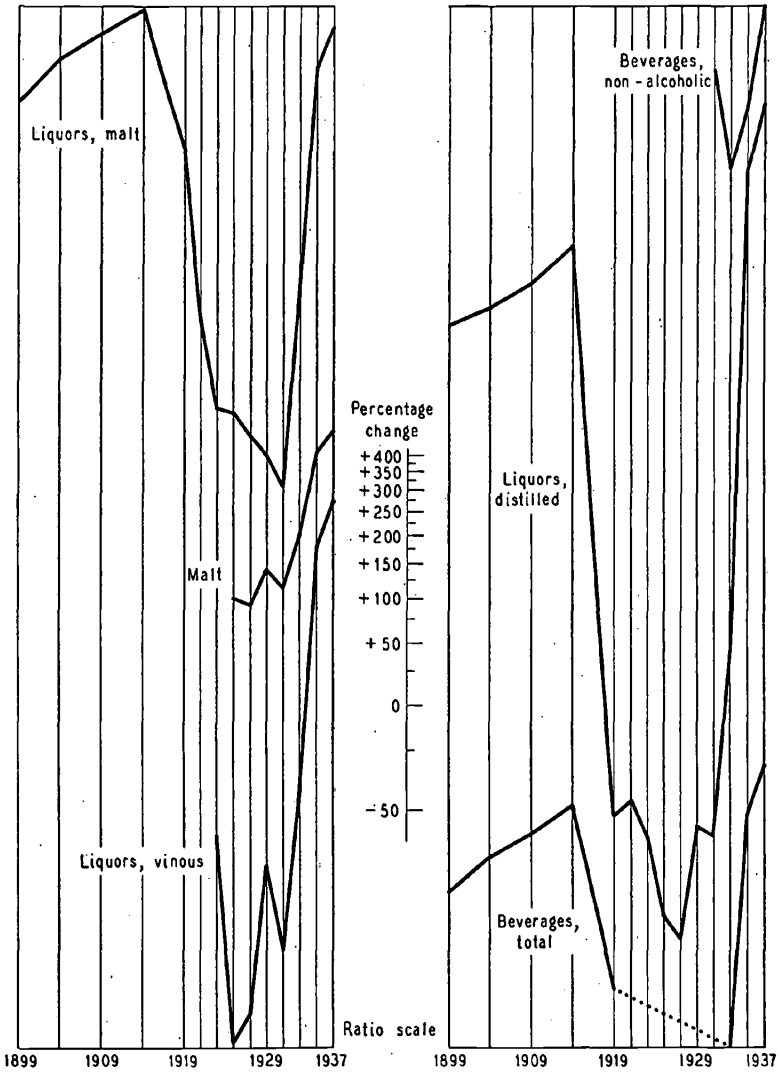
Indexes of Physical Output



tity of the output of the industry but also in its character. The products of the malt liquors industry consisted entirely of beer and ale from 1899 to 1919; entirely of so-called cereal beverages (near beer) from 1921 to 1931; and almost entirely of beer and ale from 1933 to 1937.

Malt. This industry manufactures malt not only for use in malt liquors production but for other purposes as well. The demand for malt for the latter rose less, in later years, than the demand for malt in the production of beer. For this reason the recent rise in malt output was less rapid than the corresponding increase in malt liquors output. From 1929 to 1933, prior to repeal, malt output rose by one quarter, and from 1933 to 1937 it doubled.[1] The Census figures, which extend back to 1925, indicate a rise of 20 percent between 1925 and 1929.

Distilled Liquors, not including industrial alcohol, made a net gain in output, between 1899 and 1937, of more than 300 percent. As in the case of malt liquors, the change was the net result of a rise from 1899 to 1914, and a violent fall and rise between 1914 and 1937. The substantial increase in the output of distilled liquors during the 38-year period did not represent an equivalent rise in consumption. A very large fraction of the legal output in 1933–37 went into warehouse stocks and not directly into bars and retail stores.[2] Thus, although 259 million tax gallons of distilled spirits were produced in 1937, only 99 million were withdrawn for sale. In 1899 production and consumption were very much closer to each other. These figures suggest, therefore, that consump-

[1] The growth in the output of the malt industry is somewhat exaggerated because in 1935 the Census shifted its classification of malthouses from the malt liquors industry to the malt industry. The data on output of the malt liquors industry are unaffected by the shift since the index is based on Bureau of Internal Revenue data relating to the production of malt liquors wherever made.

[2] Measurement of output of the industry at the time of distillation takes no account of the important productive process involved in aging. Unfortunately, no more satisfactory measure is readily available.

tion per capita changed but little from 1899 to 1937. The inclusion of imports does not materially affect this conclusion. If, however, illegal production constituted an appreciably larger fraction of total production in 1937 than it did in 1899 —as may have been true—consumption per capita must have risen.

Nonalcoholic Beverages. This classification covers the factory production of soft drinks, including cereal beverages. (Because of the inclusion of the latter, the output of the industry overlaps the output of the malt liquors industry.) Retail production, and the bottling of natural waters or purchased manufactured beverages, are not included. The physical output of the industry as just defined rose 50 percent from 1931 to 1937. During this 6-year period the output of cereal beverages (near beer) fell from 96 million gallons to 3 million gallons, while carbonated beverages rose from 291 million gallons to 565 million.

Summary. The physical output of the group taken as a whole cannot be measured satisfactorily for the entire period 1899–1937. For the first two decades we have data covering the two most important industries, malt liquors and distilled liquors. Their combined output rose 45 percent in the first decade and fell 69 percent in the second. For the years 1919 to 1931 data are lacking for the nonalcoholic beverages industry, which in that period was the most important industry in the group, and was probably rising in output. For the period 1933–37 we have complete coverage of the output of the entire group. The figures indicate a gain of nearly 500 percent in the 4 years. Since in 1937 malt liquors and distilled liquors again constituted a large part of the total, we may compute a reasonably accurate group index, relating output in 1937 with output in 1919, and thereby with output in 1899. The unadjusted index reveals a rise, between 1899 and 1937, of 89 percent; the adjusted index, which reflects the

increase in the importance of nonalcoholic beverages, shows a rise of 132 percent.

Over the long period taken as a whole, the output of malt liquors rose less rapidly than population, and much less rapidly than total manufacturing output. In contrast, the output of distilled liquors increased much more rapidly than population and slightly more rapidly than total manufacturing. The group total increased at a faster pace than population but was surpassed by total manufacturing output.

CHANGES IN THE INDUSTRIAL PATTERN OF BEVERAGE PRODUCTION

The composition of the physical output of the beverages group is given for selected years in Table 18. In the first decade there were only minor changes in the relative contributions of the individual industries to the group total. Malt liquors contributed more to the group's output than the

TABLE 18

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Relative Contributions of Component Industries to the Physical Output of the Entire Group[a]

Industry	*Percentage Distribution, Comparable Pairs of Years*[b]							
	1899	1937	1899	1909	1909	1919	1933	1937
Liquors, malt	78.1	51.5	58.6	61.5	55.9	75.0	54.3	48.9
Liquors, distilled	14.2	24.2	33.7	30.1	35.6	3.1	5.2	29.4
Liquors, vinous							4.4	4.9
Beverages, nonalcoholic	7.7	24.3	7.7	8.4	8.5	21.9	31.9	15.3
Malt							4.2	1.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a] Derived from Table 17. For an explanation of the derivation of the measurements see footnote 10, Chapter 4.

[b] Taxes are included in the value added per unit used to evaluate the physical output of malt, distilled liquors and vinous liquors in the 1899–1909, 1909–1919 and 1899–1937 comparisons; and are excluded in the 1933–37 comparison.

other beverage industries combined. In the second decade malt liquors not only retained its preeminent position but actually rose in importance; the relative contribution of distilled liquors declined severely in this period, whereas the remaining beverage industries (including nonalcoholic beverages) augmented their relative contributions. For the period 1919–33 no exact data on physical output are available. In the last period the share of the malt liquors industry in the group's output was largest again, though it declined slightly; the contribution of distilled liquors rose rapidly, and that of nonalcoholic beverages dropped off.

TABLE 19

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Relative Contributions of Component Industries to the Value Added by the Entire Group[a]

Industry	*Percentage Distribution*					
	1899	1909	1919		1929	1937
			Comparable with earlier years	later years		
Beverages, nonalcoholic						
Excluding near beer	5.1	5.5	17.5	17.0	..	..
Including near beer	..	..	..	..	86.7	28.5
Liquors, malt						
Including near beer	64.1	57.0	74.8	75.3	..	..
Excluding near beer and tax	..	..	..	..	[b]	58.1
Malt	1.6	1.6	2.0	2.0	2.4[c]	3.2
Liquors, vinous	1.0	1.3	2.4	2.4	0.9	..
Excluding tax	..	..	..	..	..	3.3
Liquors, distilled	28.2	34.6	3.2	3.2	10.0	..
Excluding tax	..	..	..	..	..	6.9
TOTAL[d]	100.0	100.0	100.0	100.0	100.0	100.0

[a] Basic data are given in Appendix C.

[b] No legal production.

[c] Between 1929 and 1937 malthouses were shifted from the malt liquors to the malt industry.

[d] The columns do not add up to 100.0 in every instance because they contain rounded percentages.

Between 1899 and 1937 the relative contribution of malt liquors to total beverage output (both evaluated to include taxes) fell from more than 75 percent to about 50; the contribution of distilled liquors rose from 14 percent to 24; and that of all other beverage industries from 8 percent to 24.

The incomplete information on physical output is supplemented by data on value added (in Table 19). During the prohibition era nonalcoholic beverages and malt liquors (largely near beer) naturally accounted for most of the legal beverage production. Although the nonalcoholic beverages industry declined in relative importance between 1929 and 1937, it was nevertheless much more significant in 1937 than it had been before the war—even after liberal allowance is made for the discontinuity in the data arising from the exclusion of internal revenue taxes from value added in 1937.